

originally described by Pictet, but not subsequently noticed, it may be of interest to add a few notes which will be of service in eventually determining their true relationships.

Pagellus libanicus is represented by two specimens which seem to be correctly placed in one and the same species. The first (Pictet's fig. 2) exhibits about 24 vertebræ, of which half are abdominal and half caudal. The hinder abdominal vertebræ are shown to bear very strong downwardly-directed transverse processes. The clavicle bears a considerable laminar expansion, and there is also a long and slender post-clavicle. The pectoral fins seem to have been laterally placed, with the pelvic pair directly beneath them. The pelvic fin-rays cannot be counted. The dorsal fin comprises three small spines, gradually increasing in length, followed by 13 or 14 slender articulated and bifurcating rays. It is uncertain whether there are more than two short spines in front of the anal fin, which shows 10 or 12 soft rays. The second specimen (Pictet's fig. 3) confirms the characters of the vertebral column and dorsal fin already noted. Neither fossil exhibits satisfactory remains of the head and scales.

6. *Pycnosterinx dorsalis*, Pictet, *op. cit.* p. 17, pl. ii. fig. 3.

The description of the fossil thus named can be readily verified, so far as it extends. The articulations of the dorsal and anal fin-rays are rather distant, as in the so-called *Pagellus*. The dorsal fin seems to have comprised three gradually lengthening spines, though only the hinder two are clearly shown in the fossil; and these are much shorter than the 8 or 9 soft rays which follow and give the fin an acuminate form. The anal fin exhibits three spines similarly lengthening, but considerably stouter than those of the dorsal; and these are followed by about 6 soft rays.

BIBLIOGRAPHICAL NOTICE.

The Farmer and the Birds. By EDITH CARRINGTON. With Preface by CANON TRISTRAM, F.R.S. London: George Bell and Sons. 8vo. 1898.

THE object of this little compilation is a good one and the plan of it is methodical; but, unfortunately, like most works of a similar class, it asserts more than can be proved in some cases, and some things which can be disproved in others. The authoress also appears not to have had access to a very extensive library, whilst some of the books freely quoted from are themselves compilations, and very few (with the exception of Lydekker's *Natural History* and one or two works by Miss Ormerod, Mr. O. V. Aplin, and the Rev. Theodore Wood) can be regarded as recent.

In a book of instruction it is, before all things, important that statements made should be up-to-date; therefore, if the authoress, instead of abusing aviculturists, had taken them into her councils, she might have avoided the repetition of exploded fallacies. On p. 88 she observes:—"The bird-caging public, *who employ the bird-catcher*, are more to be blamed than he, since they merely gratify a caprice, and have not even the pretext of earning a living by it. That the Nightingale seldom long survives caging merely raises his price in the market, but does not deter the trade"*. In his preface the Rev. Canon Tristram rightly states that there are certain non-preventable causes, which he specifies, for the decrease in the numbers of certain birds; and I would add that it is to these, and not to the bird-catcher, that we must attribute the reduction of our Nightingales and Goldfinches.

Is it true that the bird-caging miscreant of the present day imprisons his feathered pets to gratify a mere caprice? I trow not. No bird can be thoroughly studied in all its ways when at liberty. To understand it one must keep it in flight-cage or aviary, watch every action, record every note, both when single and mated. When this has been exhaustively done in the case of every species, the useful work of the bird-catcher may be stopped without injury to mankind—not that his trade makes one iota of difference to the number of birds inhabiting these islands.

Before leaving this little book, I should like to call attention to one or two statements which need confirmation; personally I am very sceptical as to their credibility. According to Sweet, quoted by Macgillivray, quoted by the authoress, the Garden-Warbler is very fond of the larva of *Ganoris brassicae*. I do not know any bird (and I have kept a minimum of over three hundred for some years) which will eat this caterpillar. I have no doubt that the larva of the small cabbage-butterfly is intended.

Woodlice are said to be eaten by numerous birds, but very few seem to care for them; they are almost invariably ignored.

The caterpillar of the buff-tip moth is said to be eaten by the Nuthatch: but my Nuthatch would not touch it.

Hairy caterpillars are said to be rejected by every bird but the Cuckoo; yet most of my Thrushes of various species have eaten them greedily.

The Wagtail is said to be very destructive to the turnip-beetle; yet when I had three species of Wagtails, and tried them all with these beetles, they rejected them with disgust, as did every other bird †.

The Nightingale is said not to live long in a cage; but this is almost as great a fallacy as it would be to make the same statement respecting a Canary.

It is suggested that the Cuckoo not only sucks eggs, but devours fruit and seeds. Perhaps it is as well that the kind-hearted authoress is not an aviculturist.

* A freshly caught Nightingale is worth about 3s. 6d.

† This statement is merely the guess of an entomologist, and a page and a half are devoted to enlarging upon it.

Finches are said to feed their young upon insects, which is, in a measure, true. The species of *Fringilla*, *Passer*, and *Emberiza* even give soft caterpillars and spiders to their young as soon as they become feathered; but the Fringilline method of feeding is *from the crop*, and it is to a certain extent carried on even after the young leave the nest.

A. G. B.

MISCELLANEOUS.

On the Dates of Jacob Hübner's 'Sammlung europäischer Schmetterlinge.'—Part I. By C. DAVIES SHERBORN. Part II. By JNO. HARTLEY DURRANT.

PART I.

AMONG some odd parts and numbers of different publications which were some years ago transferred as duplicates from the Library of the British Museum, Bloomsbury, to the Library of the British Museum (Natural History), occurs a portion of Hübner's 'European Butterflies' of great interest and value. This comprises:—

Zweyte Horde.—Sign. *b, c, d* (p. 32), and 2 unlettered signatures, Title, and the 2 Verzeichnisse (12 pp.). Total 44 pp.

Sechste Horde.—Sign. *a, b; a, b, c, d* (p. 32), and 1 unlettered signature, Title &c. (4 pp.). Total 36 pp.

Achte Horde.—Sign. *b, c, d, e, f, g, h, i, k* (p. 80), and 1 unlettered signature (*a*) (4 pp.). Total 84 pp.

Plates 1-60 of Geometers [figs. 1-312].

„ 1-16 of Sphinges [figs. 1-78].

„ 1-34 of Tineæ [figs. 1-237].

„ 1-16 of Tortrices [figs. 1-104].

„ 1-20 of Pyralides [figs. 1-134].

Pinned on to the titlepage of "Sechste Horde," with an old pin with the twisted wire head, is a manuscript of two quarto pages, in a handwriting I cannot identify, containing the following information:—

"Mr. Francillon has got only the Letter Press of Mr. Jacob Hubner's work on Insects from Page 1 Pyralides Pseudogeometræ, No. 1 Pyralis Emortalis—To page 30—No. 26 Pyralis Rufimitalis with an Index to this part from Pseudogeometræ page 1-7 to Verticalis 22 D 3, and in another part of Letter press from page 4 Pyralides Pseudogeometræ—Pyralides Ambigui—to page 15 No. 48 Pyralis Farinalis.

"This is all my Friend and myself have got of the Letter Press,

"The following is the Account of all the plates I have got, Viz'.

"Tineæ No. 1 Graminella to No. 209 Struthionipenes in all 30 plates.

Tortrices No. 1-2 Pariana to No. 104 Nebulana in all . 16 plates.

Pyralides No. 1 Emortalis to No. 134 Radiatalis in all 20 plates.

Sphinges No. 1 Chimera to No. 74 Populi in all 15 plates.

Geometræ No. 1 Smaragdaria to No. 98 Remutaria in all 18 plates.

Plate 19 and 20 is wanting.

Geometræ No. 111 Rubicaria to No. 120 Piniaria in all. . 2 plates."